

readers' homes | **new build**

Method Timber frame **Build cost** £450,000 **Location** North Yorkshire



The garden was totally re-designed by Sally Tierney from Garden Creations. The flower beds have a weed suppressant layer to keep maintenance to a minimum

FUTURE-PROOF

Bill and Liz Heath wanted a home to live in for the rest of their lives, so they demolished their bungalow and built a state-of-the-art eco house in its place, complete with an air source heat pump and a heat recovery and ventilation system

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Struggling to squeeze their growing family in round the Christmas table, Liz and Bill Heath decided it was time to create a bigger dining room. Better still, a bigger house. But after developing their 1960s bungalow as far as they could without making it look like a hotch-potch of extensions, they realised that the only way they could achieve what they wanted would be to move. Excited by the prospect of new beginnings, they started searching for a large, modern house within a 30km radius of their home in Claxton, near York. But they soon concluded that they were better off staying where they were, knocking down the bungalow and starting again.

"We couldn't find anything we liked within our price range," says Liz. "We love living in the village and we have great friends and neighbours, so we thought: Why not stay put and build something to our own design for half the price?"

The Heaths liked the idea of creating a house with fewer bedrooms and more general living rooms, so that their space would be used more effectively. They were also determined to bring as much glass as possible into the structure, particularly to the front of the house where they could enjoy uninterrupted views across the village green and surrounding countryside.

Hitting the books

For two years they researched and planned, visited exhibitions and pored over the internet, sourcing materials and piecing together their ideas until they had enough information to hand their plans to an architect. "We decided on a timber-frame house with a brick outer skin, and with ecological attributes built in," says Bill. "It was the fastest method of building, so there would be less disruption for the neighbours."

Because they were building on the footprint of the original bungalow, Bill and Liz didn't expect any problems getting

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Favourite feature the hallway
“With its full-height windows, it brings the outside right into the heart of the house”



their plans passed, but they were asked by their local council to reduce the height of the house by a metre. They reached a half-metre compromise, but it meant that their plans to make the loft area into a cinema room had to be abandoned. They were also told – for reasons best known to the planners – to reduce the width of the house by 30cm, which they took off the hallway.

Cleaning out

In the meantime, Bill and Liz had moved into an apartment nearby and started to clear out the bungalow, selling anything that wasn't useful or of sentimental value. A garage sale got rid of a huge amount of things, while friends and relatives took other pieces off their hands. They kept a sofa, chair and television and a few 'treasures'



This photo: The house's high-tech features include a drop-down screen for TV and computer use and a high-definition InFocus projector, casting the image on to a 2.3m cinema screen that drops down from the ceiling

which were put into storage. "Some of these things are still packed away in boxes, but we couldn't bear to throw them out," says Liz. "We had a very clear idea of the way the new house would look and our 1980s-style furnishings just wouldn't have worked with the new scheme." They even sold the fixtures and fittings, including doors, windows, carpets, radiators and the alarm system, before finally demolishing the shell of the bungalow.

"It wasn't at all strange to see the old house come down," says Liz. "It was like rubbing it out and starting again. We were so excited about the new house that we didn't have time for regrets." The site was cleared within a week and the front lawn became a compound for piles of building materials, including some much-argued-over bricks. "We submitted five different types of brick to the council, each

Location matters



North Yorkshire currently has 64 properties listed on www.plotsearch.com. Although the area has over a million inhabitants, with 124/km², compared to London's 400, there's plenty of space for those who find living around the capital just too crowded.

Regional facts and figures	Leicestershire
Cost of this property	£450,000
Current market value of similar house	£1.3 million
Plots currently available in region*	64

*correct at time of press

See our plot listings on **page 117**



Green credentials



The Heaths' air source heat pump (the Danfoss 'Thermia Atria' system, above) provides all the house's hot water and heating needs. Its estimated annual running costs (at 2008 electricity prices) is £800; for every unit of electricity the heat pump uses, it generates three to four times that in energy output, which makes it hugely energy efficient. In early 2009, OFGEM (Office of Gas and Electricity Markets) used the Heaths' home for a special study, recording both heat and electrical data to ascertain the efficiency of the system.



The owners chose the striking 'Cambria' Rational Kitchen, designed and fitted by Lynden Design Studio, York, and finished in tourmaline red with a black quartz Corian work top. Travertine tiles link the kitchen to the hallway

Top tips

- ⊕ **Do your sums when it comes to VAT. It's payable on renovations but not new-build materials, so it can often prove more economical to knock things down and start again**
- ⊕ **Think carefully about the way you live when you're planning your home – choose more living space and less bedroom space if you like entertaining or family gatherings, for example, or an upstairs laundry to save on legwork**
- ⊕ **If your old furniture just doesn't go with your vision for a new home, be bold and start again**

chosen to fit in with the existing bricks being used in the village," says Bill. "But each one was rejected. In the end we asked what they wanted us to build with, and they recommended 'Kassandra'. Although it doesn't match anything else in the village, we are perfectly happy with it."

A structural engineer recommended a raft foundation for the timber frame, which went up in just four weeks. "It was really exciting to watch the sections going up so quickly," says Liz. "When we went away on holiday a friend took photographs of the progress and emailed them to us, so we could see the room layout and the first bricks laid."

Bill and Liz had employed a main contractor to oversee the project, but his build schedule was thrown out in the first month. "There was a problem with the roof design, which was very complicated because of all the different pitches and angles, so we missed a manufacturing slot with the timber company and had to wait three months for the next one," explained Liz. "I was the go-between, liaising with the architect and the timber-frame company, Heritage Designs. In the end I was ringing Heritage Designs three times a day to make sure we didn't miss out on another slot." The Heaths also had to rethink their plans for the double garage – they had planned to upgrade it with a face-lift, but in order to reclaim the VAT they had to knock it down and rebuild it on the same footprint.

Built for tomorrow

"We wanted to get everything right the first time," says Bill. "This is where we plan to live for the rest of our lives, so everything in the house is state-of-the-art: modern windows, the best insulation, eco heating and ventilation together with the latest computerised electrical equipment and lighting. We have not compromised at all; it's certainly built for the future."

The insulation is a combination of 50mm Kingspan and Termex cellulose fibre, a breathable material that forms a compact and draught-free insulation layer attached seamlessly to the structure. It allows water vapour in the air to filter through the breathing structures, ensuring a healthy building. A weather-compensating, water-based underfloor heating system works alongside a heat recovery and ventilation system to redistribute heat throughout the house and keep running costs to a minimum. The ventilation system filters and changes the air in the house every hour, re-circulating the heat evenly



The Saint Gobain Cool-lite glass filters light and offers good solar control performance. Double glazing with a 16mm cavity has been used throughout



Floor-to-ceiling windows flood the bedrooms with light, while blinds provide privacy without detracting from the glass feature wall

to all rooms. It also minimises dust levels, as airborne particles are drawn through a filter system, and eliminates condensation on the large glass areas.

Tech talk

Technology has played a huge part in the building of the new house, which is fitted with computerised lighting (any lights left on by accident at night can be switched off from their bedside); Cat 5 cabling so that data can be streamed anywhere in the house; and an integrated Bose sound system.

Also, “there’s no wasted space in the house,” says Bill. “Another set of stairs leads to a huge fully carpeted attic room, which currently acts as a games room for the grandchildren. It has all the plumbing, electrical and ventilation built in so it could be turned into a fifth bedroom with en suite.” Another small room on this floor houses the heat recovery and ventilation system.

“Generally speaking, Bill dealt with the build and technical issues and I oversaw the interior,” said Liz.

“Once we had agreed on a red and black theme for the kitchen, we decided to carry that through the rest of the house. The most difficult part was visualising the size of the furniture before the walls were in place, because we wanted to have everything ready to go in as soon as the build was finished.”

Liz and Bill’s meticulous forward planning couldn’t have prevented some of the hitches that occurred, however. Just one week before their luxury spa bath was due to be delivered, they discovered the retail outlet had gone into administration. “We had already paid for it, so we rang the London branch, who arranged for a bath to be shipped directly from the supplier,” says Liz. “We were very relieved – we could have been bathless!”

With the house finally complete, Bill and Liz didn’t want to keep their dream home to themselves. Over the last two years they have held village and private social events in their spacious home, and have become accustomed to passers-by stopping on the roadside to admire the striking glass-fronted property.



Useful contacts



ARCHITECT Andrew Hayes, Hayes & Lazenby
01723 360733 www.hayesassociates.com **MAIN CONTRACTOR** Stephen Puckering, Moordale Construction 07979 386198 **ELECTRICIAN** RDN Electrical Services 01653 696347 **ELECTRICAL SUPPLIES** The Light House (York) 01904 476223 **TILING** GP Tiling 01942 207917 **HEAT PUMP SYSTEM** Danfoss (Eco Heat Pumps) 0114 270 3900 www.ecoheatpumps.co.uk **UNDERFLOOR HEATING** Eco Hometec 0800 862 0278 www.eco-hometec.co.uk **WINDOWS** Dendura 01538 361888 www.dendura.co.uk **TIMBER FRAME** Heritage Designs 01239 614462 www.heritagedesigns.co.uk **INSULATION** Termex 01347 821020 www.termex.co.uk **HEAT RECOVERY/VENTILATION** ADM Systems 01756 701051 www.admsystems.co.uk **KITCHEN** Lynden Design 01904 795694 www.lyndendesign.co.uk **WINDOWS** Saint Gobain Glass www.saint-gobain-glass.com **GARDEN DESIGNER** Sally Tierney Garden Design 01423 358709 www.tierneysontour.plus.com **SOFT FURNISHINGS** Sally Robinson Bespoke Soft Furnishings 01759 371309 **TRAVERTINE TILES** Al-Murad 0113 253 7766 www.al-murad.co.uk **OAK FLOOR** Warmawood 01484 685222 www.warmawood.co.uk **OFFICE FURNITURE, FIREPLACES AND MEDIA WALL** Christies Fitted Furniture 0113 240 5858 **SAPS REPORTING** Sustainable Technology Solutions 01509 410365 **ENTERTAINMENT SYSTEM** Zen Custom Solutions 01430 803473 www.zencs.co.uk

“You can’t really miss it when you drive down the road,” said Liz. “One day we were sitting in the upstairs lounge when we spotted a young couple hiding behind the bushes, having a good look at the house. The glass prevents people seeing in, so they didn’t realize that Bill and I were sitting there, looking out at them! We don’t mind when people stop to look. No one really gave the bungalow a second glance, but now everyone is curious to see it. It’s definitely a house for sharing.” »

Above: Travertine tiles on the floor and walls, used in the kitchen as well, creates a low-maintenance bathroom

Floor plans



The Heath file

Owners Liz and Bill Heath
Occupations Both are retired from the York Survey Supply Centre, which they founded
Location Claxton, near York
Type of build New build
Style Contemporary
Method of construction Timber frame with brick skin
House size 372m² (4,000ft²)

Plot size 2,023m² (0.5 acre)
Land cost Already owned
Build cost £450,000
Total cost £450,000
Cost per m² £1,210 (113/ft²)
Date work commenced January 2006
Construction time Five months
Current value £1.3 million
SAP rating 84

Total build cost breakdown

Elements of the build	Cost %	Cost m ²	Total cost*
Preliminaries	15%	£180	£67,000
Foundations	4%	£51	£19,000
External walls & windows	35%	£411	£153,000
Roof structure & covering	7%	£81	£30,000
Internal walls & doors	3%	£32	£12,000
Floors, walls & ceiling finishes	7%	£75	£28,000
Joinery & fittings	5%	£59	£22,000
Plumbing & heating	17%	£194	£72,000
Electrics	5%	£62	£23,000
Decorating	2%	£22	£8,000
Sub Total			£434,000
Fees			£4,000
External works			£12,000
Grand Total			£450,000

Build timetable

The Heaths acquired the plot in 1996, and applied for planning permission to build their new home in March 2005; permission was granted in September of the same year.

Schedule of the build 2006	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Preliminaries	06											
Foundations	06											
Timber frame erected						06						
External walls & windows						06						
Internal walls & doors							06					
Roof structure & covering								06				
Floors, walls & ceiling finishes									06			
Joinery & fittings									06			
Plumbing & heating									06			
Electrics								06				
Decorating										06	06	

06 Work in progress by year and month

OUR VERDICT

The Heaths not only thought long and hard about what they currently need from a home, but they also considered what they would need in the future, from Cat 5 cabling for new technology to open-plan spaces for social gatherings. The addition of green features such as a heat-pump make their home sustainable as well as beautiful.

